

ICOM

VHF/UHF DIGITAL TRANSCEIVER

ID-51A

D-STAR Continues to Evolve



***D-STAR
Dualwatch
GPS
Submersible
Broadcast Radio***

Actual size

D-STAR



VHF/UHF Dual Bander, Integrated GPS, Compact & Versatile Multi-F

Compact Dual Bander

Lightweight & Compact Body

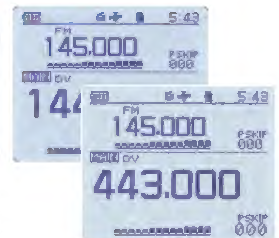
The ID-51A has a compact 58×105.4×26.4 mm body, and weighs only 255g (approx.) with battery pack and antenna. In this slim body, the ID-51A contains 5W output power, VHF/UHF dual band, D-STAR and integrated GPS receiver.



V/V, U/U, V/U Dualwatch

The dualwatch function monitors VHF/VHF, UHF/UHF and VHF/UHF bands simultaneously.* The audio and squelch levels can be set separately for the main and sub-bands.

*DV/DV, AM/AM, FM-N/FM-N and DV/FM-N modes dualwatch not available.



V/U, V/V Dualwatch example

D-STAR DV Mode

D-STAR DV Mode (Digital Voice + Data)

The D-STAR (Digital Smart Technology for Amateur Radio) DV mode is the leading amateur radio digital format.

DR (D-STAR Repeater) Mode Operation

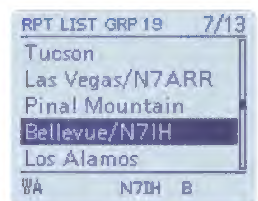
The DR (D-STAR repeater) mode operation allows you to connect to D-STAR repeaters and users more effortlessly. In this mode, just two simple steps are needed.



DR Mode example

Automatic Repeater List-up Function

Using the GPS position information, the automatic repeater list-up function shows the list of nearby D-STAR repeaters from the memory* and helps you quickly access the nearby D-STAR repeater.



Repeater list example

*To use the automatic repeater list-up function, the position data of the repeater is required. The ID-51A will be shipped with D-STAR repeater memories preprogrammed, but the position data of some D-STAR repeaters may not be available.

Convenient Functions

Independent AM/FM Receiver

FM and AM broadcast stations can be listened to while using the dualwatch function. When an amateur radio band signal is received, the broadcast station is automatically muted.



Broadcast radio example

Voice Memory Function*

The QSO recorder function records incoming and outgoing calls. The voice recorder function can record an off-line conversation. The recorded voice message can be transmitted repeatedly. (Up to 60 seconds × 1 channel)



Voice recorder example

* microSD card required.

microSD Card Slot

When used with a microSD card (Up to 32GB), the microSD card can store various contents including voice memory, DV auto reply message, TX voice message, QSO log, RX history log and GPS log data. Memory channels, D-STAR repeater memories and other personal settings can be saved to the microSD card and can be loaded to the ID-51A transceiver.

SPEECH Function

The SPEECH function announces the received call sign (DV Mode), operating frequency, and/or mode. (Depends on users settings.)



VHF/UHF DIGITAL TRANSCEIVER

ID-51A

5w

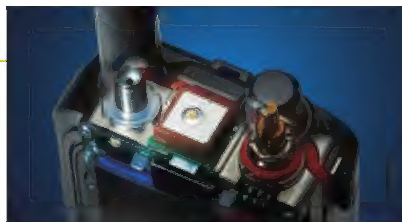


Broadcast Receiver, IPX7 Submersible... Function Digital Transceiver

Integrated GPS

Integrated GPS Receiver

The integrated GPS receiver provides fast start-up time and accurate position. Your current position and altitude are shown on the display and offers a position reporting function in DV mode. The GPS-A mode assists in easy D-PRS operation.

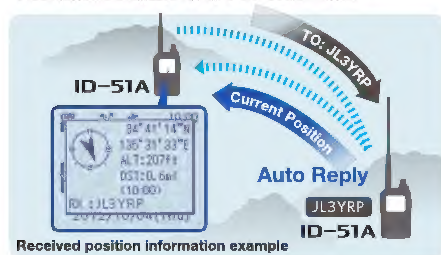


GPS receiver transparent image

Automatic Reply Function (DV Mode)

When receiving a call addressed to your call sign, the ID-51A can automatically reply your current position information*. Between ID-51A's communication, replied position information can pop up on the caller's display.

* Function not available on all D-STAR networks.



GPS Log Function*

The GPS log function logs your position information at regular intervals (1 second-60 seconds, depending on the setting) and memorizes this in the microSD card to export to your PC. The GPS logger only mode turns on the GPS logger function with the radio in sleep mode.

* microSD card required.



Durability and Easy Operation

IPX7 Submersible Construction

The ID-51A has superior IPX7 waterproof protection (1m depth of water for 30 minutes). It can be used in harsh outdoor environments, when hiking, mountain biking, touring and mountain sports.



Menu-Driven User Interface

The directional keypad and quick menu button help you with quick and intuitive access to many settings and speeds up the operation. The large full dot-matrix display with easy-to-read characters increases the amount of information.



Other Features

5W Output Power

Using a highly-efficient PA amplifier, the ID-51A generates 5W of RF output power from this compact body.

Long Lasting Battery Pack

The supplied BP-271 provides up to 4.5 hours* of operating time, and the optional large capacity battery pack, BP-272 provides up to 7.5 hours*.

* Typical operation with 1:1.8 duty cycle in DV mode. (Power save ON.)

- Total 1,304 memory channels including 700 D-STAR repeater memories
- Analog FM mode with CTCSS/DTCS code squelch
- Automatic repeater function* automatically turns on/off duplex operation and tone encoder
- * USA, Korea and Export versions only
- 16 DTMF memory channels (24 digits)
- Auto power save • Auto power off • Clock function
- Priority watch • Key lock function

Direct Rapid Charging

Recharge the ID-51A by plugging the supplied wall charger directly in the radio. The BP-271 can be charged in 3 hours (approx.) when the power is OFF.

CS-51 Cloning Software Supplied

The CS-51 cloning software is supplied with the ID-51A for editing various memory settings from a PC. (Supplied with the application CD)

- CI-V level converter for remote radio control
- Squelch release function to monitor a weak signal
- External DC power jack
- Earphone code antenna for FM broadcast
- LCD and keypad backlighting
- Weather channels and VHF air band and other utility communication can be listened to*
- * Weather channels are available for USA version only. See specifications page for receiver range details.



SPECIFICATIONS

GENERAL

* Frequency coverage (Unit: MHz)

Version	Transmit	Receiver	Broadcast
USA	144-148, 430-450 ^{*1}	(A) 136-174, 380-479 ^{*1} (B) 108-174, 380-479 ^{*1}	0.52-1.71 88.0-108.0
EXP	137-174, 400-479 ^{*2}	(A) 136-174, 380-479 ^{*2} (B) 108-174, 380-479 ^{*2}	0.52-1.71 76.0-108.0
EXP-01	144-148, 430-440	(A) 136-174, 380-479 ^{*2} (B) 108-174, 380-479 ^{*2}	0.52-1.71 76.0-108.0
AUS	144-148, 420-450 ^{*2}	(A) 136-174, 380-479 ^{*2} (B) 108-174, 380-479 ^{*2}	0.52-1.71 76.0-108.0

(A) means A Band, (B) means B band.

Guaranteed range: ^{*1} 144-148, 440-450MHz. ^{*2} 144-148, 430-440MHz.

• Type of emission	F2D, F3E, F7W
• Mode	DV, FM, FM-N
• Number of memory channels	1304 channels (including 500 regular channels, 700 D-STAR repeater, 100 program scan edges and 4 call)
• Frequency resolution	1*, 5, 6.25, 8.33*, 9*, 10, 12.5, 15, 20, 25, 30, 50, 100, 125 and 200kHz * Selectable depending on the operating band.
• Operating temperature range	-20°C to +60°C; -4°F to +140°F
• Frequency stability	±2.5ppm (-20°C to +60°C on the basis of 25°C)
• Power supply requirement	7.4V DC (with BP-271, BP-272) 5.5V DC (with BP-273)
Alkaline cells	External DC power
• Current drain (at 7.4V DC)	
Tx High	Less than 2.5A
Rx Internal SP (16Ω)	Less than 450mA/350mA (DV/FM, FM-N)
External SP (8Ω)	Less than 300mA/200mA (DV/FM, FM-N)
• Antenna impedance	50Ω (SMA)
• Dimensions (W×H×D, projections not included)	58×105.4×26.4 mm; 2.28×4.15×1.04 in
• Weight (approx.)	170g; 6oz (without battery), 255g; 8.99oz (with BP-271 & antenna)

TRANSMITTER

• Modulation system DV, FM, FM-N	GMSK reactance modulation, FM reactance modulation
• Output power (at 7.4V DC)	5W, 2.5W, 1.0W, 0.5W, 0.1W (High, Mid, Low2, Low1, S-low)
• Spurious emissions	Less than -60dBc (High, Mid), Less than -13dBm (Low2, Low1, S-low)
• Max. frequency deviation	±5.0/2.5kHz (FM/FM-N)
• Ext. Mic impedance	2.2kΩ

RECEIVER

• Sensitivity DV, FM, FM-N	Less than 0.28μV (at 1% BER) Less than 0.18μV (at 12dB SINAD)
• Selectivity DV FM FM-N	More than 50dB More than 55dB More than 50dB
• Spurious rejection	More than 60dB
• Audio output power	(at 7.4V DC, 10% distortion) Internal SP (16Ω load) External SP (8Ω load)
	More than 400mW More than 200mW

Supplied accessories (* Depending on version)

- Battery pack, BP-271
- Wall charger, BC-167SA/SD/SV*
- Antenna, FA-S270C
- Belt clip, MB-127
- Cloning software, CS-51
- Hand strap

OPTIONS

Some options may not be available in some countries. Please ask your dealer for details.

BATTERY PACKS AND CASE



BP-271



BP-272



BP-273

Battery packs	Type	Capacity	Operating time* (Approx.)
BP-271	Li-ion, 7.4V	1150mAh (min.), 1200mAh (typ.)	4.5 hours (DV/FM)
BP-272	Li-ion, 7.4V	1880mAh (min.), 2000mAh (typ.)	7.5 hours (DV/FM)
BP-273	LR6 (AA) batteries×3		—

* Tx: Rx: standby = 1:1:8. Power save function ON, GPS OFF.

WALL CHARGER



BC-167S *1

RAPID CHARGER

BC-202
Charges BP-271/BP-272
in 2/3.5 hours.

BC-123S *2

DC POWER CABLE



OPC-254L/LR

*1 BC-167SA for 120V AC, SD for 230V AC, SV for 240V AC.

*2 BC-123SA for 120V AC, SE for 230V AC.

CIGARETTE LIGHTER CABLES



CP-19R

CP-12L

SPEAKER-MICROPHONES



HM-75LS

HM-186LS

EARPHONE-MICROPHONES



HM-153LS

HM-166LS

SLIM L-TYPE PLUG ADAPTER CABLE

OPC-2144
Required when using either
HM-75A, HM-153,
HM-166 or SP-13.

HEADSETS and PLUG ADAPTER CABLE

HS-94
Earhook typeHS-95
Behind-the-head typeHS-97
Throat typeOPC-2006LS
Required when
using any of
these headsets

DATA CABLE

OPC-2218LU
USB cable

CI-V LEVEL CONVERTER



CT-17

CARRYING CASE



LC-179

SILICONE JACKET CASE



SJ-1

FA-S270C VHF/UHF ANTENNA

Same as supplied.

AD-92SMA ANTENNA ADAPTER

SMA-BNC antenna adapter.

SP-13 EARPHONE

OPC-2144 is required.

CS-51 CLONING SOFTWARE

Same as supplied.

MB-127 BELT CLIP

Same as supplied.

All stated specifications are subject to change without notice or obligation.

D-STAR (Digital Smart Technology for Amateur Radio) is a digital radio protocol developed by JARL (Japan Amateur Radio League).

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Icom Inc.

1-1-32, Kami-minami, Hirano-ku, Osaka 547-0003, Japan Phone: +81 (06) 6793 5302 Fax: +81 (06) 6793 0013

www.icom.co.jp/world

Count on us!

Icom America Inc.

2380 116th Avenue NE,
Bellevue, WA 98004, U.S.A.
Phone: +1 (425) 454-8155
Fax: +1 (425) 454-1509
E-mail: sales@icomamerica.com
URL: http://www.icomamerica.com

Icom Canada

Glenwood Centre #150-6165 Highway 17,
Delta, B.C., V4K 5B8, Canada
Phone: +1 (604) 952-4266
Fax: +1 (604) 952-0090
E-mail: info@icomcanada.com
URL: http://www.icomcanada.com

Icom Brazil

Rua Pernambuco, 353 - Sala 901
Belo Horizonte, M.G.
30130-150, Brazil
Phone: +55 (31) 3582-8847
Fax: +55 (31) 3582-8987
E-mail: sales@icombrasil.com

Icom (Europe) GmbH

Communication Equipment
Auf der Krautweide 24
65812 Bad Soden am Taunus, Germany
Phone: +49 (6196) 76685-0
Fax: +49 (6196) 76685-0
E-mail: info@icom-europe.com
URL: http://www.icom-europe.com

Icom Spain S.L.

Ctra. Rubi. No. 88 "Edificio Can Castanyer"
Bajos A 08174, Sant Cugat del Valles,
Barcelona, Spain
Phone: +34 (93) 590 26 70
Fax: +34 (93) 589 04 46
E-mail: icom@icomspain.com
URL: http://www.icomspain.com

Icom Polska

81-850 Sopot, ul. 3 Maja 54, Poland
Phone: +48 (58) 550 7135
Fax: +48 (58) 551 0464
E-mail: icompolska@icompolska.com.pl
URL: http://www.icompolska.com.pl

Icom (UK) Ltd.

Blacksole House, Altrira Park,
Heme Bay, Kent, CT6 6GZ, U.K.
Phone: +44 (0) 1227 741741
Fax: +44 (0) 1227 741742
E-mail: info@icomuk.co.uk
URL: http://www.icomuk.co.uk

Icom France s.a.s.

Zac de la Plaine,
1 Rue Brindejonc des Moulins, BP 45804,
31505 Toulouse Cedex 5, France
Phone: +33 (5) 61 36 03 03
Fax: +33 (5) 61 36 03 00
E-mail: icom@icom-france.com
URL: http://www.icom-france.com

Icom (Australia) Pty. Ltd.

Unit 1 / 103 Garden Road,
Clayton, VIC 3168 Australia
Phone: +61 (03) 9549 7500
Fax: +61 (03) 9549 7505
E-mail: sales@icom.net.au
URL: http://www.icom.net.au

Icom New Zealand

146A Harris Road, East Tamaki,
Auckland, New Zealand
Phone: +64 (09) 274 4062
Fax: +64 (09) 274 4708
E-mail: inquiries@icom.co.nz
URL: http://www.icom.co.nz

Asia Icom Inc.

6F No. 68, Sec. 1 Cheng-Teh Road,
Taipei, Taiwan, R.O.C.
Phone: +886 (02) 2559 1899
Fax: +886 (02) 2559 1874
E-mail: sales@asia-icom.com
URL: http://www.asia-icom.com

Beijing Icom Ltd.

10C07, Long Silver Mansion, No.88, Yong Ding
Road, Haidian District, Beijing, 100039, China
Phone: +86 (010) 5889 5391/5392/5393
Fax: +86 (010) 5889 5395
E-mail: bjicom@bjicom.com
URL: http://www.bjicom.com

Your local distributor/dealer: